

KRASOVSKIY, Yu.M. (Komsomol'sk-na-Amure)

Some trigonometric problems with technological significance.
Mat. v shkole no.2: 92-94 Mr-Ap '59. (MIRA 12:6)
(Trigonometry--Problems, exercises, etc.)

KRASOVSKIY, Yu.M. (Komsomol'sk-na-Amure)

Applied problems in trigonometry. Mat.v shkole no.1:85-87
Ja-F '60. (MIRA 13:5)
(Trigonometry--Problems, exercises, etc.)

KRASOVSKIY, Yu.M. (Komsomol'sk-na-Amure)

Problem on the rotation of shafts connected by a universal joint.
Mat. v shkole no.5:88-89 S-0 '60. (MIRA 13:10)
(Mathematics--Problems, exercises, etc.)
(Universal joints (Mechanics))

KRASOVSKIY, Yu.M. (Komsomol'sk-na-Amure)

Analyzing the cam mechanism. Mat. v shkole no.1:92-95 Ja-P '61.
(MIRA 14:3)
(Mathematics—Problems, exercises, etc.)

SKORYKH, S.S., gornyy inzh.; KRASOVSKIY, Yu.P., gornyy inzh.; PODKOSHA, G.P.,
gornyy inzh.

Speeding up the working of iron-ore pits. Gor. zhur. no.7:20-21 Jl
'62. (MIRA 15:7)

1. TSentral'nyy gorno-obogatitel'nyy kombinat, Krivoy Rog. 2. Nauchno-
issledovatel'skiy gornorudnyy institut (for Krasovskiy).
(Krivoy Rog Basin.--Strip mining)

BUTENKO, Yu.T., inzh.; KRAZOVSKIY, Yu.P., inzh.; TKACHEV, S.I., inzh.;
TKACHENKO, A.P., inzh.

Signal for high-speed photography in flame detonation. Met.i
gornorud.prom. no.5184 S-0 '62. (MIRA 16:1)
(Detonation) (Photography, High-speed)

ZINENKO, V.A.; PODKOSHA, G.P.; TERESHCHENKO, A.A.; TKACHENKO, A.P.;
KRASOVSKIY, Yu.P.

Ways of lowering the seismic action of large-scale blasts in
a pit of the Central Ore Dressing Combine. Gor. zhur. no.9:72
S '62. (MIRA 15:9)
(Krivoy Rog Basin--Blasting)

SEGEYEV, N.N.; IVANOV, K.V.; FEDIN, A.F.; KRASOVSKIY, Yu.P.; TKACHENKO, A.P.

Rapid building of the Pervomayskiy open-pit mine in the Severnoye
Mining and Ore Dressing Combine. Met. i gornorud. prom. no.3:73-74
My-Je '63. (MIRA 17:1)

SERGEYEV, N.N., inzh.; IVANOV, K.V., inzh.; KRASOVSKIY, Yu.P., inzh.;
TKACHENKO, A.P., inzh.

Construction of the Pervomai open-pit mine. Shakht. stroi. 7 no.4:
25-26 Ap '63. (MIRA 16:3)

1. Severnyy gornoobogatitel'nyy kombinat (for Sergeyev, Ivanov).
2. Nauchno-issledovatel'skiy gornorudnyy institut (for Krasovskiy).
3. Krivorozhskiy gornorudnyy institut (for Tkachenko).

SOV/20-126-4-14/62

24(6)

AUTHORS: Vorovich, I. I., Krasovskiy, Yu. P.

TITLE:

On a Method of Elastic Solutions (O metode uprugikh resheniy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4,
pp 740 - 743 (USSR)

ABSTRACT:

In the present paper the application of the method of elastic solutions to the main problem of elastically-plastic deformation is to be dealt with without any assumptions on the littleness of parameters. The problem of minor elastically-plastic deformations consists in solving a system of differential equations (1). The two boundary conditions are given under which solutions of (1) are found. The (limited) functional space Ω for these two solutions is then defined, and two conditions are made concerning the vector functions. Two operators, A and B, are introduced, by means of which the two boundary problems may be solved. Further, three theorems are developed with respect to the operators, from which it follows that the sequence of elastic solutions converges in the space Ω like the first derivation of a geometric progression. There are 4 Soviet

Card 1/2

On a Method of Elastic Solutions

SOV/20-126-4-14/62

references.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

PRESENTED: February 19, 1959, by S. L. Sobolev, Academician

SUBMITTED: February 19, 1959

Card 2/2

24 (6)

AUTHOR: Krasovskiy, Yu. P.

SOV/20-126-5-13/69

TITLE:

The Solvability of the Plane Problem of the Theory of Small
Elasto-plastic Deformations (Razreshimost' ploskoy zadachi
teorii malykh uprugo-plasticheskikh deformatsiy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 5, pp 961 - 963
(USSR)

ABSTRACT:

Elasto-plastic deformations are mathematically described primarily by an elliptic quasilinear system of equations of the second order. Among others, also Il'yushin solved this problem by the method of "elastic solutions". The author of this article already proved (Ref 4) that this method converges in the $W_2^{(2)}$ space where general solutions are available. This article represents an extension inasmuch as it shows that the method of "elastic solutions" offers solutions also within the space $W_2^{(1)}$, $1 > 2$, and above all a classical solution is available. Contrary to Petrova (Ref 3), the problem is dealt with in a general manner, without any limitations which do not correspond to the mechanical importance of the problem. The proof is primarily

Card 1/2

The Solvability of the Plane Problem of the Theory of SOV/20-126-5-13/69
Small Elasto-plastic Deformations

based on an inequality of the type used by O. A. Ladyzhenskaya for the purpose of proving the existence of a solution of a two-dimensional unsteady problem of hydrodynamics. The author first writes down and defines a system of two equations which describe two-dimensional, small elasto-plastic deformations of a body. The solution is considered a boundary value problem, the conditions are written down, and its solvability is theoretically investigated by three theorems. There are 4 Soviet references.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

PRESENTED: March 13, 1959, by S. L. Sobolev, Academician

SUBMITTED: March 13, 1959

Card 2/2

KRASOVSKIY, Yu. P. (Rostov-on-Don)

"Some Problems of the Nonlinear Wave Theory (On the Existence of Stationary Waves of Finite Amplitude)

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow 27 Jan - 3 Feb 60.

67887

10. 4000

16 (4)

AUTHOR:

Krasovskiy, Yu. P.

S/020/60/130/06/016/059
B013/B007

TITLE:

The Theory of Steady Waves of No Small Amplitude

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1237 - 1240
(USSR)

ABSTRACT:

A. I. Nekrasov was the first to prove the existence of a solution of the problem of continuous waves. The problem was reduced to integral equations of Lyapunov-Schmidt. The author investigates in a more exact manner the problem of waves in an infinitely deep liquid, and confines himself to mention the results of other problems, because they may be investigated in a similar manner. The author investigates such a continuous irrotational motion of a liquid, in which the liquid moves horizontally in infinite depth with the constant velocity c . The profile of the free boundary is an aperiodically movable curve. The problem of the symmetric waves then leads to the determination of the periodic function $\phi(\theta) \neq 0$ with the period 2π , which satisfies

the equation $\phi(\theta) = \frac{g\lambda}{2x_0^2} \int_0^\pi K(\xi\theta) e^{3C\xi} \sin \phi d\xi$. Here λ denotes

✓

Card 1/4

67887

The Theory of Steady Waves of No Small Amplitude S/020/60/130/06/016/059
B013/B007

the wavelength, g - the gravitational acceleration, and for K an expression is written down. The unknown function $\bar{\Phi}(\theta)$ is the angle between the tangent to the wave profile and the horizontal. $\theta = 0$ corresponds to the trough of the wave and $\theta = \pi$ to the wave crest. The author also assumes a) $\bar{\Phi}(\theta) > 0$ with $0 \leq \theta \leq \pi$ and b) $\bar{\Phi}(0) = \bar{\Phi}(\pi) = 0$. This natural assumption further plays the main part. To each solution of the here investigated problem there corresponds a flow of the liquid, the parameters determining the flow being connected by the condition $g\lambda/2\pi c^2 = \nabla$. The operator A is defined in a sphere in the space B with the radius $r < \pi/6$. It acts within this region and is completely continuous. The kernel $K(\xi, \theta)$ is not negative in the square $0 \leq \xi \leq \pi$, $0 \leq \theta \leq \pi$. According to the theorem by M. A. Krasnosel'skiy et al., it follows herefrom that in an infinitely deep liquid with limited velocity no arbitrarily long waves can exist. This, however, no longer holds for a finite liquid. The author proved the following: Periodic, symmetric waves exist in a liquid, in which the maximum of the angle of inclination towards the wave profile may assume an arbitrary

✓

Card 2/4

67887

The Theory of Steady Waves of No Small Amplitude S/020/60/130/06/016/059
B013/B007

value from the interval $(0; \pi/6)$. In a finitely deep liquid the problem is reduced to determining the non-vanishing solution of

the equation $\bar{\phi}(\theta) = \frac{g\lambda}{2\pi c^2} \int_0^\pi K_1(\xi\theta) e^{3c_1 \bar{\phi}} \sin \bar{\phi} d\xi$. Here c denotes

the average velocity along the bottom, c_1 - the conjugation operator for the ring; this means that the function $i\bar{\phi} + c_1 \bar{\phi}$ is the limit on the outer surrounding of an analytic function in a ring, which assumes real values on the outer circle of the ring. Several theorems hold, as e.g. theorem 1) With every given value h/λ there exist waves of continuous form, where the maximum of their angles of inclination may assume an arbitrary value from the interval $(0; \pi/6)$. Froude's number here satisfies the inequality $a < g\lambda/2\pi c^2 < b$, $a > 0$. a, b here depend only on h/λ . A more general problem concerning the periodic flow of a liquid over an undulating ground is then investigated. This problem may be reduced to the solution of the system of equations

Card 3/4

67887

The Theory of Steady Waves of No Small Amplitude

S/020/60/130/06/016/059
B013/B007

$$\bar{\phi}(\theta) = \nu \int_0^{2\pi} K_1(\varepsilon\theta) e^{jC\bar{\phi}} \sin \bar{\phi} d\varepsilon + \int_0^{2\pi} K_2(\varepsilon\theta) \alpha[l(\varepsilon)] d\varepsilon;$$

$$l(\theta) = \frac{L}{2\pi} \int_0^{2\pi} e^{C\alpha} d\varepsilon. 2) \text{ In the second theorem periodic flows are}$$

to be determined, in which the free boundary has the same vertical symmetry axes, and where the angle $\bar{\phi}(\theta)$ in the half period has the same sign as $\alpha(\lambda)$. Also for this case a theorem is written down. The present investigation was carried out at the Seminar for Nonlinear Problems of Mechanics at Rostov-na-Donu State University under the supervision of A. A. Vorovich. There are 5 references, 4 of which are Soviet.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Donu State University)

PRESENTED: October 23, 1959, by S. L. Sobolev, Academician

SUBMITTED: October 22, 1959

Card 4/4

4

S/020/60/133/004/034/040XX
B019/B056

AUTHOR: Krasovskiy, Yu. P.

TITLE: The Existence of Aperiodic Flows on Free Boundaries

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4,
pp. 768-770

TEXT: In the present paper the existence of a solution of the problem of the flow of a liquid over a rough ground in the case of a large Froude number is proven. A perfect incompressible liquid is assumed. As problem 1, the determination of the flow and of the shape of the free surface of the liquid in the case of a given shape of the ground is carried out. If the function $\alpha = \alpha[1]$ describes the shape of the ground and L the length of the arc AB, it may be shown that, if $\max|\alpha| < \pi/2$, a positive number ε exists, so that, with $gL/c^2 \leq \varepsilon$, a solution of problem 1 exists. As problem 2, the conditions are determined, at which for the equation of the free surface, the condition

$$\Phi[1] = -\bar{\Phi}[-1]; \quad \Phi[1] \geq 0 \text{ with } l \leq 0 \quad \text{is satisfied.}$$

Card 1/2

The Existence of Aperiodic Flows on
Free Boundaries

S/020/60/133/004/034/040XX
B019/B056

Finally, the existence of a single wave is investigated, which is propagated with constant velocity without changing its shape. It is shown that such a wave cannot exist in an infinitely deep medium and that it can also not exist if the Froude number is smaller than unity. This problem was worked out under the supervision of I. I. Vorovich at the Seminar on Nonlinear Problems of Mechanics at Rostov na-Donu State University. There are 2 figures and 3 Soviet references.

ASSOCIATION: Rostovskiy na-Donu gosudarstvennyy universitet
(Rostov na-Donu State University) ✓

PRESENTED: February 8, 1960, by M. A. Lavrent'yev, Academician

SUBMITTED: February 6, 1960

Card 2/2

KRASOVSKIY, Yu. P.

Cand Phys-Math Sci - (diss) "Steady waves of finite amplitude."
Novosibirsk, /Pub. Siberian Division Academy of Sciences USSR/
1961. 6 pp; (Academy of Sciences USSR, Siberian Division);
250 copies; price not given; bibliography on pp 5-6 (10 entries);
(KL, 7-61 sup, 219)

24 4790

S/044/62/000/005/026/072
C111/C333

AUTHOR: Krasovskiy, Yu. P.

TITLE: On the theory of stationary waves with finite amplitudes

PERIODICAL: Referativnyy zhurnal, Matematika, no. 5, 1962, 81,
abstract 5B360. ("Zh. vychisl. matem. i matem. fiz.",
1961, 1, no. 5, 836-855)

TEXT: The author examines the existence of stationary flows of a heavy, ideal and incompressible liquid over an uneven ground. It is assumed that the shape of the ground is described by a periodic function and that the liquid has a free surface. The waves originating on the free surface can have an arbitrary inclination of up 30° . The problem being considered contains a special case the known A. I. Nekrasov problem on the periodic waves of finite amplitude over a smooth ground. The reviewed paper contains the detailed description of the previously published results (RZhMat, 1961, 11B188). ✓B

[Abstracter's note: Complete translation.]

Card 1/1

L 18732-63

EPA(b)/EWT(1)/EPF(n)-2/BDS/T-2 AFFTC/ASD/SSD Pd-4/

Pu-4

69

ACCESSION NR: AP3006119

8/0207/63/000/004/0003/0016

AUTHOR: Krasovskiy, Yu. P.; Lavrent'yev, M. A.; Moisseyev, N. N.; Ter-Krikorov, A. M.; Shabat, A. B. (Novosibirsk, Moscow)

TITLE: Mathematical problems of the hydrodynamics of a liquid with free boundaries

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1963, 3-16

TOPIC TAGS: liquid-motion theory, free boundary, free-stream flow, discontinuous flow, wave phenomenon, standing wave, three-dimensional flow, Froude number, gravitational wave, Cauchy-Poisson wave

ABSTRACT: The article reviews Soviet publications of the last four years dealing with investigations in the theory of the motion of a liquid with free boundaries. Data available from the authors' survey reports presented at the IV Vsesoyuznyy matematicheskiy s"yezd (4th All-Union Mathematical Congress) in Moscow in 1958 are used in this paper. New models of free-stream and discontinuous flows are presented and discussed. Approximate methods for investigating wave phenomena, based on the asymptotics of solutions, are reviewed, and exact solutions of problems related to the theory of gravitational waves are analyzed. Attention

Card 1/2

L 18732-63

ACCESSION NR: AP3006119

is directed to the basic problems of the theory of waves, such as those of flows with Froude numbers less than unity in the case of flow past an obstacle, of the theory of waves "in the large," of the theory of three-dimensional flows, and of the complex theory of unsteady waves, for example, periodic (standing) and Cauchy-Poisson waves, for which there is still no rigorous method. Orig. art. has: 12 figures and 13 formulas.

ASSOCIATION: none

SUBMITTED: 10Apr63

DATE ACQ: 11Sep63

ENCL: 00

SUB CODE: AI

NO REF SOV: 026

OTHER: 003

Card 2/2

KRASOVSKIY, Yu.P., gornyy inzh.; VARAVA, I.P., gornyy inzh.; GLADUN, G.A.,
gornyy inzh.; TKACHENKO, A.P., gornyy inzh.; SHITAN'KO, V.I.,
gornyy inzh.

Using various types of transportation in Krivoy Rog Basin mines.
Ugol' Ukr. 7 no.11:38-39 N '63. (MIRA 17:4)

TKACHENKO, A.P., inzh.; KRAZOVSKIY, Yu.P., inzh.; TKACHEV, S.I., inzh.

Shape of explosion craters and delay intervals in blasting high
benches. Shakht. stroi. 8 no.10:8-9 O '64. (MIRA 17:12)

1. Krivorozhskiy gornorudnyy institut (for Tkachenko, Tkachev).
2. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog
(for Krasovskiy).

KRASOVSKY, N.N. (Sverdlovsk)

"Problems of control, observation and stabilization of dynamic systems".
report presented at the 2nd All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 29 Jan - 5 Feb 64.

4
KRASOVSKY, V.I., GALPERIN, YU.I., DZHORDZHO, N.V., MULYARCHIK, T.M.,
BOLUNOVÁ, A.D.

Soft Corpuscular Radiation

Report to be submitted for the 4th International Space Science Symposium
(COSPAR) Warsaw, 2-12 June 63

KRASOVSKY, V. I.

GALPERIN, YU. L., KRASOVSKY, V. I.

Equipment

Report submitted for the 4th International Space Science Symposium
(cospar) Warsaw, 2-12 June 1963

OSZAST, Zbigniew; KRASOWSKA, Halina

First experimental application of *Ammi majus* L. extract prepared in Poland, in the treatment of Vitiligo. *Przegl. derm., Warsz.* ? no.1: 1-14 Jan-Feb 57.

1. Z Zakladu Farmacji Stosowanej A. M. w Krakowie Kierownik: prof. dr M. Gatty-Kostyal, Z Zakladu Farmakologii P. A. N. w Krakowie Kierownik: prof. dr J. Supniewski, Z Miejskiego Zakladu Fizykalnego Lecznictwa w Krakowie Kierownik: prof. dr Z. Oszast, Adres: Krakow, ul. Marka 8.
(VITILIGO, ther.)

Ammi majus extract (Pol))
(AMMI, extracts

A. majus extract in ther. of vitiligo (Pol))

KRASOWSKA, J.

Alcholic intoxication as factor in development of psychic changes
and disorders in young persons. Neurol. neurochir.psychiat. polaka
2 no. 1:75-92 Jan-Feb 1952. (CLML 22:3)

1. Of the Psychiatric Clinic (Head--Prof. J. Handelsman, M. D.)
of Warsaw Medical Academy.

KRASOWSKA, Janina

Mental disorders in benign lymphocytic meningitis; preliminary note.
Neurologia etc. polska 4 no.3:292-293 May-June 54.

l. Szpital dla Nerwowo i Psychicznie Chorych w Lublinie. Dyrektor:
dr E.Cyran.

(MENINGITIS,
lymphocytic, ment. disor. in)
(MENTAL DISORDERS, etiology and pathogenesis,
meningitis, lymphocytic)

KRASOWSKA, J.

SWYNAR, St.; SIEDLICKA, J.; KRASOWSKA, J.; KOWALCZUK, W.; CHLOPIEKI, K.

Effect of the cerebral cortex on blood coagulation in mental disorders. Neurologia etc. polska 4 no.4:419-428 July-Aug 54.

1. w Kliniki Psychiatrycznej Slaskiej Akademii Medycznej.
Kierownik: prof. dr S.Swynar.

(MENTAL DISORDERS, physiology,
eff. of cerebral cortex on blood coagulation)

(BLOOD COAGULATION,
eff. of cerebral cortex in ment. disord.)

(CEREBRAL CORTEX, physiology,
eff. on blood coagulation in ment. disord.)

KRASOWSKA, Janina

Executed or attempted strangulation by underage persons.
Neur. &c. polska 6 no.6:875-887 Nov-Dec 56.

1. Klinika Psychiatryczna Al. A.M., Oddzial Mlodziezowy
Kierownik: doc. dr. S. Cwynar.

(HOMICIDE

strangulation, attempted or accomplished, by
adolescents (Pol))

(ADOLESCENCE
same))

CWYNAR, St.; SIEDLICKA, J.; KLASOWSKA, J.; KOWALCZUK, Wl.; CHIOPICKI, K.;
WOJAKOWSKI, A.; MATIAS, K.; ROSPOND, J.; KASPROWICZ, Wl.

Blood clotting time as a directional index of the dynamics of nervous
processes in various forms of schizophrenia, epilepsy & mental deficiency.
Neur. &c. polska 7 no.6:877-893 Nov-Dec 57.

1. Zespol Kliniki Psychiatrycznej Sl. A. M. w Lublinie. Kierownik:
prof. dr St. Cwynar. Klinika Psychiatryczna Slaskiej Akademii Medycznej,
Lubliniec u. Grunwaldzka 48.

(SCHIZOPHRENIA, blood in
clotting time, diag. value of determ. (Pol))

(EPILEPSY, blood in
same)

(MENTAL DEFICIENCY, blood in
same)

(BLOOD COAGULATION, determ.
clotting time in schizophrenia, epilepsy & ment. defic.,
diag. value (Pol))

KRASOWSKA, Janina

Psychotic syndrome of premenstrual tension in young girls during the
puberty period. Neurol. neurochir. Psychiat. pol. 12 no.6:893-901 '62.

l. Z Oddzialu Zenskiego Psychiatrii Rozwojowej Państwowego Szpitala
dla Psychicznie i Nerwowo Chorych w Lublinie.

(PREMENSTRUAL TENSION) (PUBERTY) (PSYCHOSES)

KRASOWSKA, Janina; MATIAS, Krzysztof; DABROWSKA, Monika

Mental immaturity and its relation to some character deviations
in adolescents. Neurol. neurochir. Psychiat. pol. 13 no.1:75-82
'63.

1. Z oddzialow mlodziezowych Kliniki Psychiatrycznej Sz. AM
1 Szpitala Psychiatrycznego w Lublinie.
(JUVENILE DELINQUENCY) (CHARACTER)
(SOCIOPATHIC PERSONALITY)
(ADOLESCENT PSYCHOLOGY)

KRASOWSKA, Janina

The new chapter in psychiatry. Neurol. neurochir. psychiatrist.
pol. 13 no.5:651-656 '63.

1. Z Kliniki Psychiatrycznej Sl. AM w Lublinie, Oddzial
Psychiatrii Rozwojowej. Kierownik Kliniki: doc. dr. S.
Swierczek.

*

KRASOWSKA, Maria; CHOMSKA, Emilia; MAZUR, Grazyna

The most frequent causes of incurable chronic pulmonary tuberculosis responsible for permanent incapacitation according to data on patients in the Anti-Tuberculosis Hospital in Cieszyn obtained during 1952-1959. Gruslica 28 no.12:979-988 D '60.

1. Ze Szpitala Przeciwgruzliczego w Cieszynie, Dyrektor: dr
M. Krasowska.
(TUBERCULOSIS PULMONARY etiol)

KRASOWSKA, Maria; MAZUR, Grazyna; TORBUS, Wieslawa

Microbiological method in the determination of isonicotinic acid hydrazide (INH) level in the blood and its role in patients with pulmonary tuberculosis. Polski tygod. lek. 16 no.12:435-440 20 Mr '61.

1. Szpital Przeciwgruzliczy w Cieszynie; dyrektor: dr M. Krasowska.

(ISONIAZID blood)

POMPOWSKI, Tadeusz; KOWALCZYK, Jerzy; KRASOWSKA-GRUDOWSKA, Aleksandra

Application of paper ionophoresis for the separation of ferric aluminum
and titanium ions. Chem anal 6 no.3:387-392 '61.

1. Department of Technical Analysis, Politechnic, Gdansk.

KA50200, Z.P.

BABOKIN, I.A., redaktor; BALBACHAN, Ya.I., redaktor; BARABANOV, F.A., redaktor; BUCHNEV, V.K., redaktor; VLADIMIRSKIY, V.V., redaktor; GRIGOR'YEV, S. Ye., redaktor; DOKUKIN, A.V., redaktor; ZHABO, V.V. redaktor; ZADEMIDKO, A.N., redaktor; ZAITSEV, A.P., redaktor; IL'ICHEV, A.S., redaktor; KAGAN, V.Ya., redaktor; KRASNIKOVSKIY, G.V., redaktor; KRASOZOV, I.P., redaktor; KRIVONOGOV, K.K., redaktor; LALAYANTS, A.M., redaktor; MOGILEVSKIY, N.M., redaktor; ONIKA, D.G., redaktor; OSTROVSKIY, S.B., redaktor; OSTROVSKIY, S.M., redaktor; PEYSAKHOVICH, G.I., redaktor; POCHENKOV, K.I.. redaktor; SIRYACHENKO, F.N.;redaktor. SKOCHINSKIY,A.A., redaktor; STUGAREV, A.S., redaktor; SKORKIN, K.I.; SKURAT, V.K., redaktor; SOROLEV, G.G., redaktor ;TERPITOREV, A.M., redaktor; KHUDOCOVTSIEV, N.M., redaktor; TSYPKIN, V.S., redaktor; SHEVYAKOV, L.D., redaktor; SHENKOV, A.A., redaktor;ANDREYEV, G.G., tekhnicheskiy redaktor.

[Safety rules in coal and shale mines] Pravila bezopasnosti v ugol'nykh i slantsevykh shakhtakh. Moskva, Ugletekhnizdat, 1951.
207 p. (MLRA 9:1)

1. Russia (1923- U.S.S.R) Ministerstva ugol'noy promyshlennosti.
(Coal mines and mining-Safety measures)

KRASOV, I.P., geroy Sotsialisticheskogo Truda

On the road of technical progress. Ugol' Ukr. 2 no.12:9-10 D '58.
(MIRA 12:1)

1. Nachal'nik kombinata Stalinugol'.
(Coal mines and mining)

KRASOV, I.P., Geroy Sotsialisticheskogo Truda

Expansion of coal mining; in the Stalino Economic Council
after the 21st Congress of CPSU. Ugol' Ukr. 3 no.6:1-5
Ja '59. (MIRA 12:11)

1. Nachal'nik kombinata Stalinugol'.
(Stalino Province--Coal mines and mining)

KRASOV, I.P.; RUDCHENKO, V.P.; BASHKOV, A.I.; BEGORUSSOV, Yu.G.

"Principles of technical progress in coal mining in the U.S.S.R."
is a necessary and timely publication. Ugol' Ukr. 4 no.1:
45-46 Ja '60. (MIRA 13:5)
(Coal mines and mining)

KRASOV, I.P., Geory Sotsialisticheskogo Truda

Technical progress is a prerequisite of success in coal mining.
Ugol' Ukr. 4 no.3:1-6 Mr '60. (MIRA 13:6)

1. Nachal'nik kombinata Stalinugol'.
(Donets Basin--Coal mines and mining)

KRASOV, I.P.

Cooperation between the Donets Basin and Krivoy Rog miners is
getting stronger. Ugol' Ukr. 4 no.7:4-6 Jl '60. (MIRA 13:8)

1. Nachal'nik komb'nata Stalinugol'.
(Donets Basin--Oblast miners)
(Krivoy Rog--Miners)

KOZLOV, F.R.; KOSYGIN, A.N.; ZASYAD'KO, A.E.; NESMEYANOV, A.N.; ANTROPOV, P.Ya.;
YELYUTIN, V.P.; RUDAKOV, A.P.; KIRILLIN, V.A.; TOPCHIYEV, Al-dr V.;
BLAGONRAVOV, A.A.; SHEVYAKOV, L.D.; SHILIN, A.A.; MEL'NIKOV, N.V.;
KRASHIKOVSKIY, G.V.; TOPCHIYEV, A-y V.; BOYKO, A.A.; BRATCHENKO, B.F.;
GRAFOV, L.Ye.; KUZ'MICH, A.S.; KRATENKO, I.M.; MAN'KOVSKIY, G.I.;
PLAKSIN, I.N.; AGOSHKOV, M.I.; SPIVAKOVSKIY, A.O.; POCHENKOV, K.I.;
KRASOZOV, I.P.; KOZHEVIN, G.V.; LINDENAU, N.I.; KUZNETSOV, K.K.

Academician A.A. Skochinskii; obituary. Bezov.truda v prom. 4 no.11:
18-19 N '60. (MIRA 13:11)
(Skochinskii, Aleksandr Aleksandrovich, 1873-1960)

KOZLOV, F.R.; KOSYGIN, A.N.; ZASYAD'KO, A.F.; NESMEYANOV, A.N.;
ANTROPOV, P.Ya.; YELYUTIN, V.P.; RUDAKOV, A.P.; KIRILLIN, V.A.;
TOPCHIYEV, Aleksandr V.; BLAGONRAVOV, A.A.; SHEVYAKOV, L.D.;
SHILIN, A.A.; MEL'NIKOV, N.V.; KRASNIKOVSKIY, G.V.; TOPCHIYEV,
Aleksey V.; BOYKO, A.A.; BRATCHENKO, B.F.; GRAFOV, L.Ye.; KUZ'MICH,
A.S.; KRATENKO, I.M.; MAN'KOVSKIY, G.I.; PLAKSIN, I.N.; AGOSHKOV, M.I.;
SPIVAKOVSKIY, A.O.; POCHENKOV, K.I.; KRASOZOV, I.P.; KOZHEVIN, G.V.;
LINDENAU, N.I.; KUZNETSOV, K.K.

Academician A.A.Skochinskii; obituary. Mast.ugl. 9 no.11:22 N '60.

(MIRA 13:12)

(Skochinskii, Aleksandr Aleksandrovich, 1873-1960)

KOZLOV, F.R.; KOSYGIN, A.N.; ZASYAD'KO, A.F.; NESMELYANOV, A.N.; ANTROPOV, P.Ya.; YELUTIN, V.P.; RUDAKOV, A.P.; KIRILLIN, V.A.; TOPCHIYEV, Aleksandr V.; BLAGONRAVOV, A.A.; SHEVYAKOV, L.D.; SHILIN, A?A?; MEL'NIKOV, N.V.; KRASHNIKOVSKIY, G.V.; TOPCHIYEV, Aleksey V.; BOYKO, A.A.; BRATCHENKO, B.F.; GRAFOV, L.Ye.; KUZ'MICH, A.S.; KRATENKO, I.M.; MAN'KOVSKIY, G.I.; PLAKSIN, I.N.; AGOSHKOV, M.I. SPIVAKOVSKIY, A.O.; POCHENKOV, K.I.; KRASOZOV, I.P.; KOZHEVIN, G.V.; LINDENAU, N.I.; KUZNETSOV, K.K.

A.S.Skochinskii; obituary. Vest.AN SSSR 30 no.11:73-75 N '60. (MIRA 13:11)
(Skochinskii, Aleksandr Aleksandrovich, 1874-1960.)

KRASOV, I.P.

New equipment and advanced technology in the mines of Stalino Economic Region. Ugol' Ukr. 5 no.9:12-14 S '61. (MIRA 14:9)

1. Zamestitel' predsedatelya Stalinskogo sovnarkhoza.
(Stalino Province--Coal mines and mining)

KRASOV, I.P.

Ef'orts of the Donetsk Scientific Research Coal Institute
to accelerate technical progress. Ugol' 39 no.8:18-22
Ag '64. (MIRA 17:10)

I. Direktor Donetskogo nauchno-issledovatel'skogo ugol'nogo
instituta.

KRASOV, I.P.; ZHUKOV, V.Ye.; POL'SKIY, N.D.

Problems in the complex mechanization of stoping operations
in steeply pitching seams of the Donets Basin. Ugol' 40
no.8;44-48 Ag '65. (MIRA 18:8)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for
Krasov, Zhukov). 2. Kombinat Artemugol' (for Pol'skiy).

KRASOV, I.P.; YEPIFANTSEV, Yu.K.

Ways of increasing the rate and improving technical and economic indices of development operations in Ukrainian Donets Basin mines. Ugol' 40 no.11:16-21 '65. (MIRA 18:11)

1. Donetskij nauchno-issledovatel'skiy ugol'nyy institut.

FUKS, B.B.; KONSTANTINOVA, I.V.; STEFANOVICH, L.Ye.; LUK'YANOVA, I.G.;
TSYGANKOV, L.I.; KOLAYEVA, S.G.; KRASS, I.M.; VAN'KO, L.V.

Specific biosynthesis of antibodies induced by ribonucleic acid from
the lymphatic nodes and spleen of immune rabbits. Dokl. AN SSSR 153
no.2:485-488 N '63. (MIRA 16:12)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR.
Predstavleno akademikom A.N.Belozerkskim.

X

FUKS, B. B.; KONSTANTINOVA, I. V.; KOLAYEVA, S. G.; TSYGANKOV, A. P.; SHUL'GA, V. A.
KRASS, F.; MAKSIMOVSKIY, L. F.

"Anti-BSA formation initiated in vivo and in vitro by ribonucleic acid from
lymph nodes and spleen of immunized rabbits (histochemical, biochemical and
immunological investigation)."

report submitted for 2nd Intl Cong, Histochimistry & Cytochemistry, Frankfurt,
16-21 Aug 64.

Moscow.

Dept Experimental Biology, Inst Cytology & Genetics, AS USSR, Novosibirsk 72.

KRASS, Ya. R.

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5342

Author: Bershteyn, D. O., Krass, Ya. R.

Institution: None

Title: Experience with Production of Xylolith Articles with the Use of Local
Magnesia Binders

Original
Publication: Stroit. prom-st', 1956, No 6, 32-33

Abstract: Information is given concerning the technology, developed by Yuzh-
uralimetallurgstroy and TsNIPS in 1955, of the production of xylolith
articles on the base of waste of the "Magnezit" plant (magnesia
dust). At the present time the trust produces sectional xylolith
partition panels 1,500 x 500 x 80 mm. Compression strength of the
panels, after 7 days, is of 34.2 kg/cm², volumetric weight 1,100
kg/m³, weight of 1 m² of the panel is 65-70 kg.

Card 1/1

PIROGOV, A.A.; KRASS, Ya.R.; BORISKIN, I.Ye.; KOSTINSKIY, D.S.;
SOKHA, G.Ye.; YEVDOKIMOV, Yu.P.

Using magnesia concrete and brick blocks for lining electric steel
smelting furnaces. Ogneupory 26 no. 4:176-180 '61. (MIRA 14:5)

1.Ukrainskiy nauchno-issledovatel'skiy institut ogneuprov (for
Pirogov, Krass). 2. Khar'kovskiy traktornyay zavod (for Boriskin,
Kostinskiy, Sokha, Yevdokimov).

(Refractory materials) (Smelting furnaces)

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; VORONIN, V.I.; TKACHENKO, A.A.;
BULATNIKOV, Ye.A.; FREYDIN, L.M.; KOSINSKIY, V.F.

Testing carbon blocks in iron tapping troughs in blast furnaces.
Ogneupory 28 no.8:368-370 '60. (MIRA 16 :9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for
Pirogov, Leve, Krass). 2. Komunarskiy metallurgicheskiy zavod
(for Voronin, Tkachenko, Bulatnikov, Freydin, Kosinskiy).

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; POPOV, G.I.; KOVAL'CHUK, Ye.I.

Unfired brick made of magnesite-chromite concrete for the building
of open-hearth furnaces. Ogneupory 29 no.2:55-59 '64. (MIRA 17:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for
Pirogov, Leve, Krass). 2. Zavod "Zaporozhstal'" (for Popov, Koval'chuk).

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; BELICHENKO, G.I.; KOTIK, P.L.;
SILORENKO, Yu.P.; ZIL'BERG, Ye.S.; DRYAPIK, Ye.P.; VAYNTRAUB, S.S.;
ZHIDKOV, V.A.; SHCHEDRINSKIY, L.I.; MOREV, G.P.

Prefabricated blocks of unfired magnesite-chromite brick.
Metallurg 9 no.4:23-24 Ap '64. (MIRA 17:9)

1. Ukrainskiy institut ogneuporov, Nikitovskiy dolomitovyy
kombinat i Kommunarskiy metallurgicheskiy zavod.

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; SHAMIL', Yu.P.; KURGANOV, V.V.;
VASIL'YEV, S.N.; REZCHIK, V.G.

Testing unfired molded, brick made of magnesia concrete
in electric arc furnace walls. Stal' 24 no.8:710-711 Ag '64.
(MIRA 17:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov i
zavod "Dneprospetstal'".

PIROGOV, A.A.; RAKINA, V.P.; KRASS, Ya.R.; VOLKOV, N.V.; BELICHENKO, G.I.;
GALATOV, N.S.; NESTEROVA, A.L.; KORKOSHKO, N.M.; YEL'TSOV, V.V.

Dolomite magnesite blocks for lining oxygen-blown converters.
Ogneupory 30 no.9;4-5 '65. (MIRA 18;9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov
(for Pirogov, Rakina, Krass, Volkov, Belichenko).
2. Krivorozhskiy metallurgicheskiy zavod (for Galato,
Nesterova, Korkoshko, Yel'tsov).

KRASSALKOVICS; SZEKERES

Remark about the article by Laszlo Demeter entitled "Preparation of foundry sands." Koh lap 12 no. 10: Supplement: Ontode 8 no. 9/10:222-223 S-0 '57.

KRASSO, Sandor

Investments of Baranya County and the city of Pecs in 1959. Pecsi
musz szeml 5 no.1:10-16 Ja-F '60.

KRASSO, Sandor, dr.

Probable difficulties in Pecs' gas supply. Pecsi musz
szeml 7 no.1:19- 3 of cover Ja-Mr '62.

1. Baranya megyi Statisztikai Igazgatosag, Pecs.

KRASSO, Sandor

Some results and shortcomings of the 1962 Hungarian investments.
Pecsi műsz szeml 8 no.2:1-6 Ap-Je '63.

1. Kozponti Statisztikai Hivatal Baranya megyei Igazgatosaga.

KRASSO, Sandor

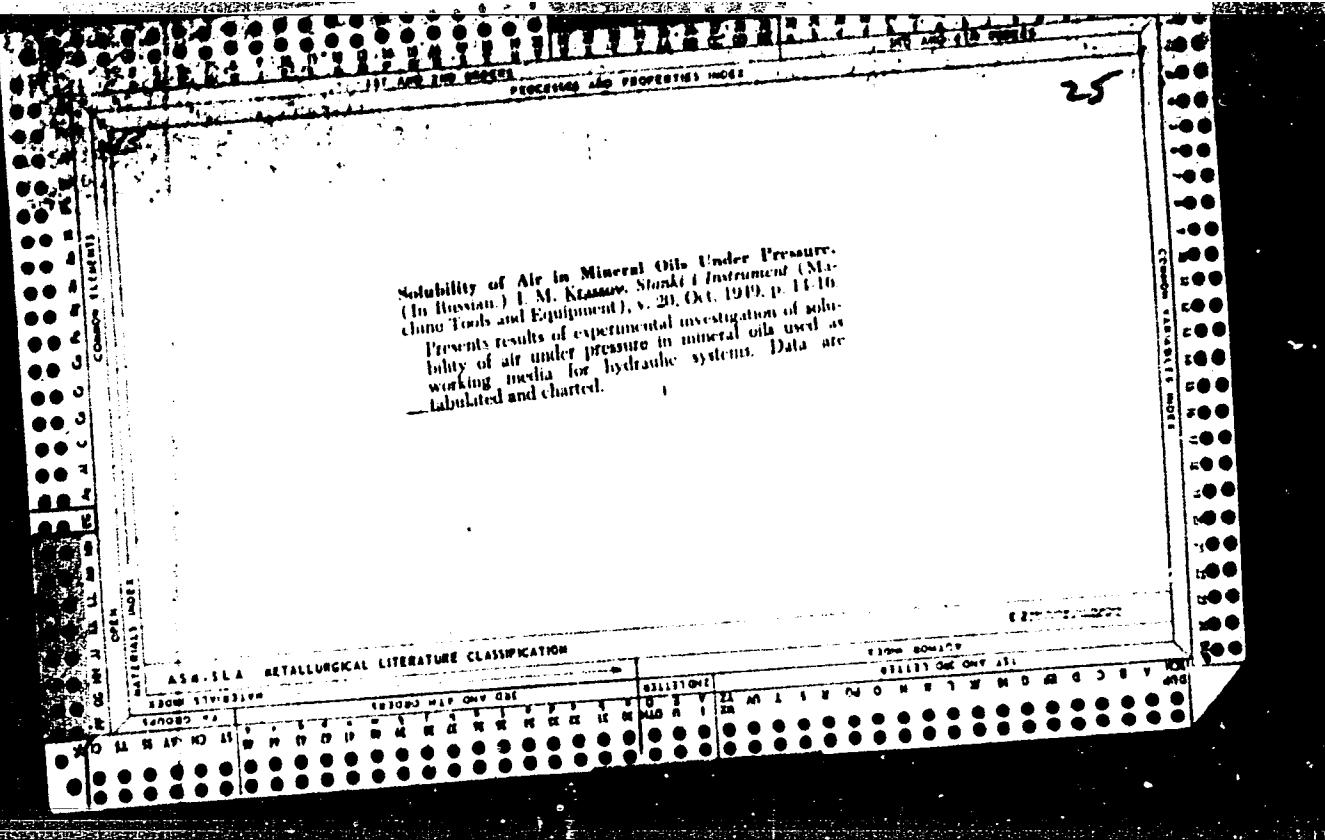
Preliminary work on the construction of dwellings in Pecs
according to the 3d five-year plan. Pacsi mustz szeml 9
no.4:10-13 O-D '64.

1. County Directorate of the Central Statistical Office,
Pecs.

KRASSO, Tamas

Model car races in 1959. Auto motor 12 no. 3:10 F '59.

1. MHS Modellezo eloado.



KRASSOV, I. M.

"Solubility of Air in Pressure Fluids of Hydraulic Systems." Sub 7 Apr 51,
Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze

Dissertations presented for science and engineering degrees in
Moscow during 1951.

CC: Sum. No. 480, 9 May 55

KRASSOV, I. M. and TENNY, V. P.

"Equipment for Determining the Dynamic Characteristics of Regulators",
Avtomatika i Telemekhanika, Vol 14, No 1, 1953, pp 51-55.

Describes equipment for the experimental determination of the dynamic characteristic of a regulator. The amplitude-phase characteristic is obtained by means of a comparison of simultaneously recorded input and output oscillations. The input sinusoidal undamped oscillations with a constant amplitude may be artificially excited with frequencies, characteristic for slow-moving processes. A cam, rotated by a hydraulic motor, serves as an exciter. A description of the hydraulic motor and the device for changing the amplitude of input oscillations is given. For recording the oscillations transducers and a multiloop oscillograph are used. The obtained curves are expanded into Fourier series. An example of testing the automatic regulator of hydraulic type with a jet pipe is given. (RZIMekh, No 11, 1954) SO: Sum. No. 443, 5 Apr. 55

KRASSOV, I.M.(Moskva); TAGAYEVSKAYA, A.A.(Moskva); VASIL'YEVA, M.A.(Moskva)

Rectangular wave technique for determining the amplitude-phase
characteristics of automatic controlsystems. Avtom. i telem. 14(1),
no.3:322-327 My-Je '53. (MLRA 10:3)
(Pneumatic control)

DUDNIKOV, Ye.G.(Moskva); KRASSOV, I.M., (Moskva); TAGAYEVSKAYA, A.A.(Moskva);
TEMNYY, V.P. (Moskva); BARKALOV, P.T., (Moskva).

Experimental determination of the dynamic characteristics of control
systems in industrial plants. Avtom. i telem. 14 no.4:418-423 J1-Ag
'53. (MLRA 10:3)

(Automatic control)

Krasnov, IM
Dynamic testing of a concentration-measuring device for sulfuric acid. I. M. Krasnov and P. T. Bykovsky. *Avtom.* *Telemekh.* 13, No. 5, 265-71 (1954); *Referat. Zhur., Khim.* 1956, Abstr. No. 16090.—The amplitude-phase characteristics of the transmitting element of the concn. regulator were recorded. At the inlet to the element the concn. of H_2SO_4 was periodically adjusted manually by alternate opening of taps delivering acid from two tanks containing acid of different concns. At the outlet from the transmitting element was located a d-c. intensifier controlling the tracing of an oscilloscope. A second tracing of the same oscilloscope registered the position of the trace by means of a

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826210

1. Time of the phase of the init signal [] Mks 220255

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000826210C

SOV/112-58-1-914

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 1, p 133 (USSR)

AUTHOR: Krassov, I. M.

TITLE: Schematic Diagram Involving an Actuating Mechanism and a Hydraulic System (Ob odnoy skheme vklucheniya ispolnitel'nogo mekhanizma v gidrosistemu)

PERIODICAL: Sb. statey po avtomatike i elektrotehnike, Moscow, AS USSR, 1956, pp 315-321

ABSTRACT: A hydraulic actuator scheme is considered that has a slide-valve distribution and a throttle that bypasses the valve and cylinder. A problem is examined of optimum operating conditions of such an actuator and of choice of dimensions for obtaining maximum efficiency. Formulas are developed for determining velocity, power, and efficiency of an actuator functioning under optimum conditions. Methods of optimum parameter determination are described. Effect of pressure in the cylinder on the quantity of liquid flowing into it is found out. Knowing this effect, piston travel speed can be determined

Card 1/2

SOV/112-58-1-914

Schematic Diagram Involving an Actuating Mechanism and a Hydraulic System

with a given load as a function of the cylinder pressure. Further, piston area corresponding to its maximum travel speed is determined. These are precisely the maximum efficiency conditions under a given load. The efficiency of the actuator in question is 30%. In developing the formulas, the back pressure at the cylinder outlet has been neglected. There are 2 illustrations.

Bibliography: 1 item.

Ye.F.P.

AVAILABLE: Library of Congress

1. Hydraulic systems--Equipment
2. Servomechanisms--Design
3. Servomechanisms--Performance

Card 2/2

AUTHORS: Kalashnikov, V. A., Krassov, I. M., SOV/119-58-8-2/16
Petrov, V. V.

TITLE: On the Evaluation of Servomechanisms (Ob otsenke
i srovnenii servomekhanizmov)

PERIODICAL: Priborostroyeniye, 1958, Nr 8, pp. 7 - 10 (USSR)

ABSTRACT: A servomechanism is a device for magnifying power output, which makes use of a foreign source for the purpose of increasing energy (Refs 1 and 2). A weak control signal is to be modeled at its output, which had been fed in at its input with errors being kept as small as possible. On the basis of an electrohydraulic control mechanism it is shown to what extent its dynamic and static characteristics correspond to constructional directives given, and in what way the mechanism fulfills its task within the framework of the entire process of control. Particular care must be taken in order that a servo-mechanism with such an amplitude-phase characteristic be selected in the case of which the dynamics of the mechanism exerts hardly any influence upon the constancy of work and the process of

Card 1/3

SCV/119-58-8-2/16

On the Evaluation of Servomechanisms

control.
The operation of a servo-mechanism is characterized by the following indices:

- 1) Energetic indices as e.g.:
a) control output, b) the work of control, c) the maximum effective power output, d) nominal stress, e) maximum stress.
- 2) Static indices as e.g.:
a) the course taken by the static characteristic, b) the nominal velocity of displacement, c) the nominal amount of the control signal, d) the zone of insensibility.
- 3) Dynamic indices.

These indices characterize processes of transmission in servo-mechanism when a single shock-like action brings about a change from without, or if a sinusoidal modification of the external action influences the phenomenon of motion in the servo-mechanism.

Such indices are: a) the time of supply, b) the time needed for re-establishing the normal velocity of displacement, c) time of slowing down, d) reaction time of the servo-mechanism, e) the time constant of the servo-mechanism.

Card 2/3

On the Evaluation of Servomechanisms

SOV/119-58-8-2/16

There are 6 figures and 7 references, which are Soviet.

1. Servomechanisms--Effectiveness
2. Servomechanisms--Control systems
3. Control systems--Performance

Card 3/3

KRASSOV, I.M.; TURBIN, B.G.

Hydraulic load devices. Inzh.-fiz. zhur. no.10:109-112 O '58.
(Hydraulic machinery) (MIRA 11:11)

103-19-3-3/9

AUTHORS: Krassov, I. M., Turbin, R. G. (Moscow)

TITLE: On a Possibility of Determining the Hydrodynamic Axial Force in a Slide Valve (Ob odnoy vozmozhnosti opredeleniya osevoy gidrodinamicheskoy sily ra zolotnike)

PERIODICAL: Avtomatika i Telemekhanika, 1958, Vol. 19, Nr 3, pp. 217-220 (USSR)

ABSTRACT: The authors here investigated the axial force which is not in equilibrium and which is produced in the outflow of the working fluid from a hydraulic amplifier with a slide valve. Its nature, magnitude and influence upon the work of the hydraulic amplifier as well as the possibility of a reduction of the axial force are investigated. In experiments with a two-cascade amplifier with a high power-amplification factor the possibility was found by means of a manometer fastened to the interthrottle-chamber. This possibility is caused by the principal peculiarities of the amplifier itself. The equation (4) for the axial force R is derived:
$$R = k(p - p') + c(x' - x)$$
 x' denotes the opening of the slide valve, x' the repeated opening. p the pressure in the chamber. $(x' - x)$ can be determined according to p and p'

Card 1/3

103-19-5-3/9

On a Possibility of Determining the Hydrodynamic Axial Force in a Slide Valve

by means of the static characteristic of the first amplifier-cascade (which is experimentally determined). The static characteristic is approximately expressed by

$$p = \frac{p_{\text{static}}}{55.7g^2 + \dots} \quad (5)$$

p_{static} denotes the static pressure in the chamber of the needle; g is the displacement of the needle with regard to the valve, calculated from that place where the needle completely shuts the valve-port. For the calculation of $x' - x$ equation (7) is derived. When, therefore p and p' are measured and when the spring flexibility c , the constant k are known - the magnitude of the axial force not being in equilibrium and acting upon the valve together with the frictional forces can be determined according to equations (4) and (7). The experiments did not show a sufficient accuracy. The given relations can only be considered approximate ones. It is important that the two-cascade-amplifier of this type (needle valve) can serve as measuring device for the axial force not being in equilibrium and that therefore no loading devices are necessary.

Card 2/3

103-19-3-3/9

On a Possibility of Determining the Hydrodynamic Axial Force in a Slide Valve

There are 3 figures, 1 table, and 3 references which are Soviet.

SUBMITTED: July 9, 1957

Card 3/3

8(1);25(2)

PHASE I BOOK EXPLOITATION

SOV/3243

Krassov, Igor' Mikhaylovich

Gidravlicheskiye usiliteli (Hydraulic Boosters) Moscow, Gosenergoizdat, 1959. 87 p. (Series: Biblioteka po avtomatike, vyp. 7)
Errata slip inserted. 13,000 copies printed.

Ed.: N. P. Kozlov; Tech. Ed.: P. M. Asanov; Editorial Board of
Series: I. V. Antik, S. I. Veshenevskiy, V. S. Kulebakin, A. D.
Smirnov, B. S. Sotskov, Ye. P. Stefani, and N. N. Shumilovskiy.

PURPOSE: The book is intended to acquaint the reader with the principles of hydraulic boosters.

COVERAGE: The book contains information on the principles of hydraulics, on elements and types of hydraulic pressure systems, and on methods of pressure boosting in hydraulically actuated machinery. Emphasis is given to the design, arrangement, mechanical properties, dynamic features, and operation of stepped-

Card 1/3

Hydraulic Boosters

SOV/3243

piston cylinders. Valves, jet pipes, baffled nozzles, and single and double-acting hydraulic actuators are discussed. Methods of calculating boosting coefficients are presented. No personalities are mentioned. There are 28 references, all Soviet.

TABLE OF CONTENTS:

Introduction	3
Ch. 1. Basic Information on Fluid Flow	7
Ch. 2. Working Fluids in Hydraulic Systems	19
Ch. 3. Hydraulic Booster With Piston Valve	27
Ch. 4. Hydraulic Booster With Jet Pipe	38
Ch. 5. Hydraulic Booster With Baffled Nozzle	49

Card 2/3

Hydraulic Boosters	SOV/3243
Ch. 6. Multiple-stage Hydraulic Boosters	59
Ch. 7. Boosting Coefficients of Hydraulic Boosters	73
Ch. 8. Input Elements for Hydraulic Boosters and Hydraulic Control Elements	78
Bibliography	87

AVAILABLE: Library of Congress

Card 3/3

AC/mmh
4-25-60

28(1) PHASE I BOOK EXPLOITATION SOV/2007

Elementy sistem avtomaticheskogo regulirovaniya. Ch. 1:
Chislitel'nye usiliteli dlya uspoletiye i apointiruyushchye elementy
(Elements of Automatic Control Systems. Pt. 1: Sensing,
(Sensing and Control Elements). Moscow, Mashiz, 1959. 722 p.
All rights reserved. 13,000 copies printed.

Revol'ser, P. F. Gal'tsev, Candidate of Technical Sciences,
Candidate of Technical Sciences, V. P. Klobukov,
Tu. A. Reznik, Yu. D. Rapin, Candidate of Technical Sciences,
Sciences, B. N. Ryabov, Doctor of Technical Sciences,
Candidate of Technical Sciences, A. G. Serebryakov,
Candidate of Technical Sciences, A. A. Shvezakov,
Technical Sciences, A. I. Molodavets, I. M. Vitenskii,
Sciences, and Yu. Ye. Barashki, Candidate of Technical
Sciences, Professor, V. V. Solodovnikov, Doctor of Technical
and G. A. Arshavskii, Q. M. Konorov, Eds. or Publishing House, G. P. Polyakov,
Building and Instrument Construction (Maznig); A. Ya. Tikhonov
Revisor.

REPORT: This book is intended for engineering and scientific
personal and for instructors of future concerned with problems
of automatic control.

COVERAGE: The authors explain the principle of operation of automatic control elements and servomechanisms. They also discuss
typical automatic control systems and present equations of motion and static and dynamic characteristics of automatic control
elements. They describe sensing elements, amplifiers, control
units or parts. The book contains sections I, II, and
following persons participated in writing the present work:
D. A. Bravard, Candidate of Technical Sciences, Paragraph 4 of
Chapter III and Paragraphs 1-8 and 14 of Chapter IV;
L. S. Goldfarb, Doctor of Technical Sciences, Paragraph 4 of
Section I; A. I. Gusenko, Candidate of Technical Sciences, Paragraphs 1, 2,
Candidate of Technical Sciences, Paragraph 1 of Chapter VIII; K. Ye. Dmitriev,
Candidate of Technical Sciences, Paragraph 1 of Chapter XII;
V. A. Malashinskiy, Engineer, Chapter XIV; P. P. Klobukov,
Candidate of Technical Sciences, Paragraph 1 of Chapter XVII;
V. P. Klobukov, Candidate of Technical Sciences, Paragraph 1 of Chapter XVIII;
T. M. Krassov, Candidate of Technical Sciences, Chapter
I and Chapter II; A. A. Sokolov, Candidate of Technical Sciences, Paragraph 1 of Chapter XII;
V. V. Petrov, Doctor of Technical Sciences, Paragraph 1-3 of Chapter XIII;
M. A. Korobkin, Candidate of Technical Sciences, Paragraph 1 of Chapter XIV;
Yu. Ye. Barashki, Doctor of Technical Sciences, Paragraph 1-3 of Chapter XV;
V. V. Kostylev, Candidate of Technical Sciences, Paragraph 1-5 and 8-10 of Chapter VI;
A. D. Sedorov, Candidate of Technical Sciences, Paragraph 1, paragraphs 2-5, 12,
Chapter XI; A. A. Sokolov, Candidate of Technical Sciences, paragraphs 1-3
Chapter XII; J. K. Chirko, Candidate of Technical Sciences, paragraphs 1-3 and
Paragraph 9-13 of Chapter XIII; Chapter IV; Paragraph 4 of Chapter XV;
Chapter XI; O. M. Danov, Paragraph 4 of Chapter XVI; Paragraph 1 of Chapter XVII;
A. D. Sedorov, Candidate of Technical Sciences, Paragraph 1-2, 4-11, 14-16 and 28-30 of Chapter XII;
V. A. Kholodov, Candidate of Technical Sciences, Chapter V; and
the end of each chapter.

TABLE OF CONTENTS:
Introduction

SECTION I. SENSING ELEMENTS. TRANSUDERS,	1
1. Bridge sensing elements	4
2. Electronic sensing elements	6
3. Permanent-magnet moving-coil sensing elements	6
4. Electrodynamic sensing elements	12
5. Electromechanical transducer	17
6. Electromagnetic sensing elements	22
7. Induction sensing elements	24
	32
	17

Elements of Automatic Control Systems (Cont.)

Ch. XI. Sensing Elements for Measuring Non-electrical Quantities	15
1. Electro sensing elements	447
2. Pressure sensing elements	480
3. Piezoelectric sensing elements	482
4. Magnetostrictive sensing elements	483
5. Capacitive sensing elements	483
6. Thermistors	484
7. Liquidation pressure sensing elements	485
8. Thermoelectric sensing elements	485
9. Absorption sensing elements	487
10. Floating and bell-type sensing elements	487
11. Throttling sensing elements	487
12. Hydrodynamic sensing elements	487
13. Anemometer sensing elements	488
14. Electromagnetic sensing elements	489
15. Centrifugal sensing elements	490
16. Calorimetric sensing elements	490
17. Thermometers	490
18. Pressure thermometers	490
19. Resistive and dilatometric sensing elements	490
20. Resistance thermometers	490
21. Thermocouples	490
22. Thermoelectric sensing elements	490
23. Electrostatic sensing elements	490
24. Radiation sensing elements	490
25. Electrolytic sensing elements	490
26. PH - measuring elements	490
27. Gas analyzers	490
28. Psychometric sensing elements	490
29. Pyroelectric sensing elements	490
Ch. XII. Optoelectric Sensing Elements and Accelerometers	490
1. General information on gyro sensing elements	111
2. Gyro verticals	111
3. Course-indicating gyro systems	117
4. Accelerometers	131
Ch. XIII. Transducers	143
1. Contact transducers	157
2. Potentiometers	157
3. Displacement transducers	158
4. Electromagnetic transducers	173
5. Piezoelectric transducers	173
6. Photoelectric transducers	173
7. Capacitance transducers	178
8. Inductive transducers	178
9. General information on seylyns	179
10. Operation of seylyns with longitudinal and transverse components of current in the secondary	182
11. Operation of a seylyn transmitter with a number of parallel-connected receivers	189
12. Classification of static accuracy of seylyns and demodulators	193
13. Operation of seylyns with synchro control transmitters and magnetrons	200
Ch. XIV.	214
Ch. V. Demodulators	214
1. Function and basic characteristics of modulators and demodulators	216
2. Modulators	216
3. Demodulators	221
Ch. VI. Amplifiers	245
1. Vacuum-tube, transistor and thyratron amplifiers	258
1. Vacuum-tube amplifiers	258
2. Voltage amplifiers	258
3. Power amplifiers	258
4. Transistor amplifiers	258
5. Thyatron amplifiers	300
2. Magnetic amplifiers	323
1. Single-cycle magnetic amplifiers	326
2. Multi-cycle magnetic amplifiers	327

Elements of Automatic Control Systems (Cont.)

	507/2087
2. Push-pull (reversible) magnetic amplifiers	337
3. Voltage amplifiers (magnetic modulators)	345
4. Multistage and polyphase amplifiers	350
5. Contactless magnetic relays	350
6. General information on the design of magnetic amplifiers	354
7. Determination of design parameters of magnetic amplifiers	356
8. Largeness of magnetic amplifiers and methods of decreasing it	364
Ch. VIII. Dynamoelectric Amplifiers	369
1. Separately-excited dynamoelectric amplifiers	375
2. Self-excited dynamoelectric amplifiers	376
3. Amplidynes	388
Ch. IX. Hydraulics and Pneumatics	394
1. Throttling hydraulic amplifiers	413
2. Jet-type hydraulic amplifiers	413
3. Throttling pneumatic amplifiers	416
4. Jet-type pneumatic amplifiers	462
Ch. X. CONTROL ELEMENTS	470
1. Control Elements Using D-C Motors	484
2. D-C motor	484
3. Operation of a servomotor or with a control motor	494
4. Operation of an amplifier with a control motor	500
5. Controlling the operation of a self-excited motor by varying the field	510
Ch. XI. Control Elements Using Two-Phase Induction Motors	513
1. Operation of a two-phase induction motor	511
2. A system of equations describing physical processes in a two-phase induction motor	514
3. Torque of a two-phase induction motor	514
4. Static characteristics of a two-phase induction motor and their use in determining parameters K_d , K_f , f_d , f_f	514
5. Effect of parameters of external circuits on static characteristics of a two-phase induction motor	548
6. Transfer function of a two-phase induction motor	553
7. Attenuation-frequency and phase-frequency characteristics of a two-phase induction motor	557
8. Passing an a-c amplitude-modulated signal through an element having a transfer function $G(p)$ of a two-phase induction motor for any $G(p)$	563
9. Transfer function of an open-loop system using a quick-response reversible electromagnetic clutch	567
Ch. XII. Electric Control Elements Using Electromagnetic Clutches	570
1. Dry-friction electromagnetic clutches	573
2. Viscous-friction electromagnetic clutches	574
3. Electromagnetic slip clutches	584
4. Principle of operation and construction of a quick-response reversible electromagnetic clutch	595
Ch. XIII. Hydraulic and Pneumatic Control Elements	597
1. Hydraulic control elements	630
2. Pneumatic control elements	630
3. Pneumatic control elements with volume control	654
Ch. XIV. Servomechanisms and the Evaluation of Their Characteristics	673
1. Basic indices for evaluating servomechanisms	679
2. Speed of servomechanisms	679
3. Accuracy of a servomechanism	684
4. Additional indices for evaluating servomechanism characteristics	686
Bibliography	698
Total	720

KRASSOV, I.M.; TURBIN, B.G.

Flow coefficient of a nozzle-valve throttle. Avtom. proizv. protz.
no.3:130-135 '60. (MIRA 13:10)
(Hydraulic control)

AUTHORS: Kosharskiy, B. D., Engineer,
Krassov, I. M., Candidate of
Technical Sciences, Shliozberg, Yu. A.,
Engineer, Yastrebenetskiy, M. A., Engineer

S/119/60/000/04/011/014
B014/B008

TITLE: Jet Generators for Pressure Vibrations

PERIODICAL: Priborostroyeniye, 1960, Nr 4, pp 27-29 (USSR)

ABSTRACT: Technical data on jet generators for pressure vibrations which are designed for the recording of the dynamic characteristic of pneumatic and hydraulic controllers of industrial installations, are given in the paper under review. The generators described here were built up from mass products by the "Teploavtomat" Works of the Khar'kovskiy sovnarkhoz (Khar'kov sovnarkhoz). Transformer oil is the working substance. The single-stage hydraulic amplifiers 1 and 2 are shown in figure 1. The jet tube is turned periodically to the side by a rotating eccentric, whereby the pressure in a nozzle connected with the element to be investigated depends on the position of the jet tube. A return coupling device is provided in type A (Fig 1a) to ensure the proportionality between the movement of the coupling rod and the position of the jet tube. In type B (Fig 1b) a spring is provided for the balancing of the kinematic system and for adjusting. The relation between the displacement

Card 1/2

Jet Generators for Pressure Vibrations

S/119/60/000/04/011/014
B014/B008

of the jet tube and the movement of the coupling rod is described by formula (1). B-type generators can be used for oscillation amplitudes of from 20 mm water column up to 3 kg/cm², and the oscillograms of 2 oscillations with amplitudes of 55 mm water column and of 1.3 kg/cm² are given in figure 2. The amplitude-frequency characteristic is shown in figure 3. It is finally pointed out that these jet generators can be used for hydraulic and pneumatic computers as well as for "extreme controllers". There are 3 figures and 4 Soviet references.

Card 2/2

S/103/60/021/04/05/007
B014/B014

AUTHORS: Dekabrun, I. Ye., Kozlov, N. P., Krassov, I. M. (Moscow)

TITLE: Dynamics of an Electromagnetic Control Element

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 4, pp. 506-512

TEXT: The polarized electromagnetic control element under consideration is schematically represented in Fig. 1. The armature travel is described by the differential equation (1). It is said that both the type of load and the frictional forces of the armature are to be taken into account in studying an electromagnetic control element. The differential equation (4) describes the armature travel without considering a possible load. The forces usually acting upon the armature are written down as the sum of three single forces: $P = P_1 + P_2 + P_3$; P_1 is the component produced by the sources of polarization, P_2 is the component produced by the sources of control, and P_3 is produced by interaction between the magnetic fluxes of the sources of control and polarization. The last-mentioned component virtually determines the direction in which the

Card 1/2

86253
S/103/60/021/011/010/014
B019/B067

26.2190

AUTHORS: Krassov, I. M., Radovskiy, L. I., Turbin, B. G. (Moscow)

TITLE: An Approximation Determination of the Reaction of the Jet
in the Hydraulic Amplifier "Nozzle - Flap"

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 11,
pp. 1536 - 1538

TEXT: The authors discuss the approximate calculation of the force which
is formed at a flap for a liquid jet emerging from a nozzle. The reaction
of the jet consists of three components: force N_1 which is formed by a
change of the moved mass of liquid emerging from the nozzle; force N_2
which acts upon the cross section of the nozzle due to the liquid pres-
sure, and force N_3 which is caused by the liquid pressure in the gap be-
tween the end of the nozzle and the flap. The reaction of the jet as a
sum of these three components is:

X

Card 1/2

86253

An Approximation Determination of the
Reaction of the Jet in the Hydraulic
Amplifier "Nozzle - Flap"

S/103/60/021/011/010/014
B019/B067

$$N = N_1 + N_2 + N_3 = \frac{4\pi Q^2}{\pi d_c^2} + \frac{\pi}{6}(d_H^2/2 + d_c^3/d_H)p_c \quad (8). \quad Q \text{ denotes the liquid}$$

delivery through the nozzle, d_c the nozzle diameter, d_H the diameter of the nozzle front, and p_c the liquid pressure at the nozzle opening. The following formulas are given for the two quantities p_c and Q entering (8):

$p_c = p_1 - 8QQ^2/\pi^2 d_c^4 \mu_c^2$ and $Q = \mu \pi d_c h \sqrt{2p_1/Q}$, where p_1 pressure in the chamber between the throttles, μ_c the delivery coefficient of the nozzle without flap, μ delivery coefficient of the nozzle with flap, and h the gap between nozzle and flap. Thus N may be determined. In the experimental checking of this expression satisfactory results were obtained. There are 1 figure, 1 table, and 5 Soviet references.

SUBMITTED: April 9, 1960

Card 2/2

86219
S/103/6C/CIA/000826210
B012/B064

16,9500(1024,1031,1132,1067)

AUTHORS: Krassov, I. M., Radovskiy, L. I., Turbin, B. G. (Moscow)

TITLE: Effect of the Characteristics of an Electric Control Element
on the Selection of Parameters of a Hydraulic Amplifier

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 12,
pp. 1623-1626

TEXT: The present paper investigates the effect of the characteristics of an electromagnetic control element of the РЭП (REP) type (Refs. 1, 2) upon the choice of the initial pressure in the choke chamber of the hydraulic amplifier with nozzle and shutter. The basis is given for calculating this pressure, taking into account the characteristics of the control element, and equation (22) for the relative pressure in the choke

chamber $\bar{p}_1 = \sqrt{\alpha^2 + \alpha + 0.0625} - (\alpha - 0.25)$ is derived, where $\alpha = n_0/c$,
 c - a constant, $n_0 = \left| \frac{\partial M}{\partial \varphi} \right|_{\varphi=0}$, M - the moment of the control element, and

Card 1/3

86210

Effect of the Characteristics of an Electric Control Element on the Selection of Parameters of a Hydraulic Amplifier

φ - the angle of torsion of the shutter. Fig. 3 shows the dependence of pressure p_1 on α . Thus, it may be seen that the relative pressure in the

chamber reaches 0.75 only at high α -values. In the present electromagnetic control elements and hydraulic amplifiers with nozzle and shutter, α changes in the range of from 0.2 to 0.75, which, however, corresponds to the beginning of the curve. For this reason it is recommended to consider the effect of the control element upon the operation of the hydraulic amplifier. Formula (22) gives the possibility of determining such a pressure p_1 which warrants a maximum of the pressure- (or current-) ampli-

fying factor in dependence on the characteristics of the control element and the characteristics of the nozzle with shutter.

Legend to Fig. 1: Principal scheme of a hydraulic amplifier with nozzle and shutter: 1) choke with constant flow-passage cross sectional area,

2) choke chamber, 3) nozzle, 4) shutter.

Legend to Fig. 3: Dependence of the relative pressure p_1 on α

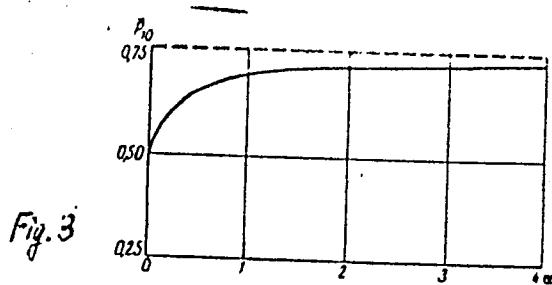
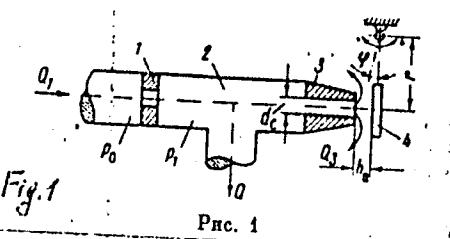
Card 2/3

Effect of the Characteristics of an Electric Control Element on the Selection of Parameters of a Hydraulic Amplifier

S/103/60/021/012/006/007
B012/B064

There are 3 figures and 6 Soviet references.

SUBMITTED: February 24, 1960



Card 3/3